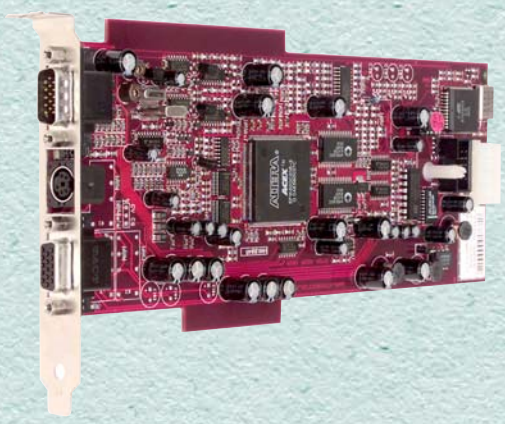
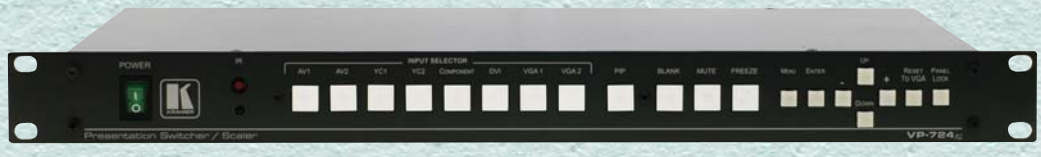


AVT-8710
Sharpness
Tint
Color
Bright
Contrast
System
Select
A
S
PN
PM
P
N4
N
Reset
Multi-system Time Base Corrector

Deuce HD
Intelligent Video Scaler
INPUT SELECT
VIDEO
S-VIDEO
COM-PONENT
OUTPUT FORMAT
VIDEO SCALING
480p
720p
1080p
1280 x 1024
1366 x 768
ASPECT RATIO
SOURCE DISPLAY
16:9 → 16:9
4:3 → Full Screen
4:3 → 4:3 in 16:9 Screen
Communications Specialties, Inc.


POWER
IR
INPUT SELECTOR
AV1
AV2
YC1
YC2
Component
DVI
VGA 1
VGA 2
PIP
BLANK
MUTE
FREEZE
Menu
Enter
Up
Down
Reset To VGA
Panel Lock
Presentation Switcher / Scaler
VP-784

B&H
PHOTO - VIDEO - PRO AUDIO

The AV Presentation SourceBook

Section 8

Scan Converters / Scalers

Aurora Multimedia 524-525

AV Tool 526-529

CSI 530-535

Kramer 536-537

TV One 538-545

Obtaining information and ordering from B&H is quick and easy. When you call us, just punch in the corresponding Quick Dial number anytime during our welcome message. The Quick Dial code then directs you to the specific professional sales associates in our order department.

For Section 8, Scan Converters, use Quick Dial #: 821

DIDO

Ultra High Resolution Image Processor

DIDO is a high- resolution video scaler with multi-image rotation in a compact enclosure. It is a video processor, high-resolution Picture-in-Picture (PiP) generator, and audio/video switcher which supports a wide selection of input and output resolutions and formats with the ability to rotate, stretch and crop multiple images. It features image enhancing capabilities such as Motion Adaptive De-interlacing, Low-angle Directional Interpolation, 3:2 & 2:2 inverse pull-down, Moiré cancellation color correction, adaptive flesh tone adjustments, image zoom & shrink. The powerful AARE (Aurora Advanced Rotation Engine) Picture-and-Picture (PAP) engine offers several modes of operation. DIDO accepts digital and analog video inputs through a combination DVI / RGBHV / YPbPr connector and S-Video/ composite input connectors. Includes audio propagation delay compensation for correct sync with video. Internal event scheduler with real time clock allows AARE special effects to be scheduled locally and between DIDO units when connected via the RS-485 bus. Includes full featured IR remote control and interface cables.

FEATURES

- The DIDO is capable of quad image or side-by-side (split screen) display allowing up to four simultaneous high-resolution full motion image display; perfect for video teleconferencing, security, command and control room applications.
- Ability to provide real time image rotation of multiple inputs with no need to pre-format the video content; perfect for digital signage and kiosk applications.
- Stretch and crop features work in both horizontal and vertical display modes, ready made for video wall applications.
- DIDO is capable of translucent overlays to maximize main image size while still seeing PiP windows.
- Multiple DIDO units can be linked for various video wall configurations up to 16x16 displays.
- With component, computer, and DVI 1.0 outputs, the DIDO can work with virtually any high resolution display device currently on the market and assures future compatibility (a perfect addition to projectors, LCD display panels, plasma display panels, video wall cubes, and even desktop CRT or LCD monitors).
- RS-232 port provides full feedback (including IR control synchronization for integration with control systems.

DIDO JR

DIDO Jr. is the ideal video wall processor and video image rotation engine. Integrators can design video walls with up to 64 monitors and the monitors can even be mounted in portrait position. DIDO Jr's image quality is visibly superior to much more expensive video wall processors and it gives any integrator the ability to produce a high quality video wall. On-screen display menus make the DIDO Jr. a breeze to set up. Input and output resolutions are completely customizable to match the displays' optimal resolutions. User presets allow for simple manipulation of the video wall. You can easily set it up to go from a single large image shown across all monitors to unique images on several groups of monitor.

- Image enhancing capabilities including Motion Adaptive De-interlacing, Low-angle Directional Interpolation, 3:2 & 2:2 inverse pull-down, Moiré cancellation, color correction, flesh tone adjustments, and image zoom & shrink.
- AARE Picture-and-Picture (PAP) engine offers several modes including: Side-by-Side (split screen) images, Image Rotation (for digital signage), Translucent Overlays to maximize main image size while still seeing PiP.
- Includes audio propagation delay compensation to sync the audio with video.
- Small size allows it to be mounted behind the display, providing optimal video quality and flexible installation options.
- Accepts digital and analog video inputs through a combination DVI/ RGBHV/ YPbPr connector and S-Video/composite input connectors.
- Internal Event Scheduler with Real Time Clock allows AARE special effects to be scheduled locally and between DIDO units when connected via the RS-485 bus.
- Includes full featured IR remote control and interface cables.

AURORA MULTIMEDIA

D-TUNE

TV/FM Display Tuner

D-Tune is a high quality TV Tuner with 181 channels and an FM tuner with RDS. It scales standard cable TV signals up to 480i / 480p /525i / 525p RGBHV/YPbPr output. D-Tune also provides closed captioning with Aurora's Exclusive DSCC (Display Safe CC) technology as well as Teletxt for international PAL applications.

- High Quality TV/FM Tuner for flat displays.
- Hides behind display device.
- Improves signal quality.
- RS-232 port provides full feedback for integration with control systems.
- Bitmap image allows an image to be displayed at activation for a set amount of time.
- RDS information viewable on display for title and artist info.

XTUNE PRO

Scaler, Dual Tuner, PiP Generator and 6-in-1 Switcher

XTune Pro is a high resolution scaler, 6 input switcher, TV/FM tuner and PiP window generator in one economical device. Combine the XTune Pro with plasma displays, LCD projectors or CRT displays to make the ultimate integrated presentation and multimedia display solution. The XTune provides enhanced functionality to your display for a variety of applications. Conference rooms, video conferencing, training facilities, video production, home entertainment, and even office desktops will benefit from this small but powerful device.

- Dual TV Tuners, 181 Channels NTSC
- Multimedia Inputs: composite video, S-video, YPbPr, DVI 1.0, RGBHV and analog audio L/R
- Supports a wide range of video output resolutions from 480i to 1366 x 768 RGBHV and 1080i/720p/480p YPbPr
- OSD menu for display setup, input configuration, image adjustments, and much more
- Supports a wide variety of picture-in-picture (PiP) modes (including Side-by-Side PiP Blending), PiP Size, and PiP Location)
- Provides a 4:3 and 16:9 aspect ratio output selection and a variety of image stretch modes
- RS-232 character generation, 30 character text messaging
- RS-232, IR, and contact closure controllable
- PiP and SBS (Side-by-Side) features allow high-resolution to low-resolution and low-resolution to low-resolution combinations perfect for video conferencing, home theater, and surveillance applications
- Noise reduction & dot crawl reduction, 3/2 pull-down
- Improves signal quality and upscales input signals to the native resolution of the display
- Supports channel scanning and storage
- Motion adaptive de-interlacing, and adaptive 4H comb filtering with Y/C processing
- Compact rack mount design (8.4 x 5.7 x 1") - easily hides behind display device
- Cost effective and firmware upgradeable

VTUNE PRO

RS-232 Controllable TV/FM Tuner w/Closed Captioning

The VTune Pro is a 181 channel TV tuner with composite video out. It is a perfect low cost TV tuner for plasmas, LCD, and CRT displays. Using RS-232, IR, or contact closure controls ensures that this affordable compact TV/FM tuner is easily integrated into any audio/video system.

AVT-1660 • AVT-1670

Standards Converters

The AVT-1660 is a digital standards converter that allows you to freely convert between various worldwide television standards. The input system can be NTSC 3.58, NTSC 4.43, PAL, PAL-M, PAL-N or SECAM and the output system can be either NTSC or PAL. It inputs and outputs composite and S-Video signals.

The AVT-1670 employs a TBC (time base corrector) for improved picture quality and better motion compensation than the AVT-1660. The input system can be NTSC 3.58, NTSC 4.43, PAL or SECAM and the output system can be either NTSC or PAL. It inputs and outputs composite video signals.

They Both Feature

- Full Digital Conversion Technology
- Output Standards: NTSC 3.58, PAL
- Line Conversion: 525 to 625, 625 to 525
- Field Conversion: 60 to 50, 50 to 60
- They measure 1.8 x 9.3 x 5.1" (HWD), and weigh 14 oz.

AVT-1660 Only

- Built-in color bar generator
- Composite and S-Video input/output
- Automatic Input Standard Detection: NTSC 3.58, NTSC 4.43, PAL, PAL-M, PAL-N, SECAM

AVT-1670 Only

- 2 Megabit Field Memory (TBC)
- Composite video input/output
- Automatic Input Standard Detection: NTSC 3.58, NTSC 4.43, PAL, SECAM

ATV-1660 Standards Converter *(ATV1660)* **179.95**
ATV-1670 Standards Converter *(ATV1670)* **179.95**

CDM-830T

Standards Converter

Remarkably affordable, the CDM-830T provides broadcast quality conversion between numerous worldwide NTSC, PAL and SECAM broadcast TV standards. It also incorporates a Time Base Corrector with full synchronization allowing it to be genlocked to a composite video source. High performance is achieved via digital conversion and Digital Comb filtering in the decoding process. An automatic gain circuit insures that the proper video output level is maintained, even when the input signal varies. Processing controls include Brightness, Contrast, Color Saturation and Hue. Horizontal and Vertical Phase adjustments are also provided. Also available in a rackmount version (CDM-830TR).

- Automatic detection of input signal standard
- Digital comb filter for input signal decoding
- Built-in TBC/Synchronizer - active even in bypass mode
- Full digital decoding/encoding
- Automatic Gain Control ensures 1V p-p output
- Adjustable Contrast, Brightness, Color Saturation, Hue and H&V Phase
- Field conversion and line conversion

CDM-830T Tabletop (TVCDM830T) or Rackmount (TVCDM830TR) **899.95**

AVT-3150 • AVT-3160 • AVT-3170

Scan Converters

The AVT-3150 converts PC and Mac computer signals to analog video. Settings are controlled via top panel push-buttons. A Zoom feature allows you to enlarge a portion of the computer screen to fill the entire video screen and the Pan feature allows you to move around to any area you choose. The AVT-3150's small size makes it ideal for use with laptops or desktop computers and it handles resolutions up to 1024 x 768 at 60Hz. Composite and S-Video outputs are simultaneously provided as well as a computer monitor loop-thru. Now, you can convert anything on your computer screen for viewing on a TV or recording to tape.

The AVT-3160 comes in a rugged metal case and steps up with NTSC and PAL video output, brightness and sharpness control, and settings that can be controlled via top panel push-buttons or via the supplied remote control.

Like the AVT-3160, the AVT-3170 converts PC and Mac computer signals to NTSC or PAL composite and S-Video outputs. Plus, it is equipped with genlock and overlay, so you can also add titles and graphics as well to external video signals.

FEATURES

- Compatible with PC and Mac computers with plug and play operation
- Automatically handles 640 x 480, 800 x 600 and 1024 x 768 resolutions
- Supports 50Hz to 100Hz vertical refresh rates and 24KHz to 48KHz horizontal scan rates
- 5-Line Anti-Flicker Filter
- Composite and S-Video output, plus computer monitor loop-thru
- Underscan and Overscan switch
- Freeze and Zoom
- Includes PC input/output cable, composite and S-Video output cables

AVT-3160 Step-up Features

- Rugged metal case
- 3 levels of brightness control, 8 levels of sharpness control
- Includes infrared remote control
- Switchable NTSC-PAL video output

AVT-3170 Step-up Features (from the AVT-3150)

- With genlock and overlay you can add titles and graphics to external video signals. The internal keyer lets you select Black or Blue background color
- Switchable NTSC-PAL video output

AVT-3190
Component Down Converter

The AVT-3190 converts PC (up to 1600 x 1200) and HD component signals (up to 1080i) to analog NTSC or PAL video with simultaneously composite, S-Video and component outputs, as well as computer or HDTV Pass-thru. Settings are controlled via front panel push-button, supplied infrared remote control or RS-232 interface. Other features include over-scan which allows you to fill the entire video screen and switchable 4:3 and 16:9 aspect ratios.

- Switchable PC or HDTV inputs
- NTSC or PAL outputs (composite, S-Video or component)
- Supports PC inputs up to UXGA (1600 x 1200)
- Supports VGA refresh rates to 140Hz
- Supports HDTV inputs up to 1080i
- Loop thru inputs - both PC and HDTV
- Adjustable image scaling: Pan, Position and Zoom
- 2D flicker filter
- Aspect Ratio adjustment
- Test Functions include Overscan, Freeze, Test Pattern and Magnifier
- Remote Control with on-screen display
- RS-232 control is fully supported
- Measures 2 x 8 x 6" (HxWxD), it weighs 2.2 lbs.
- Supplied with PC I/O cable, component, composite and S-Video output cables

AVT-3340

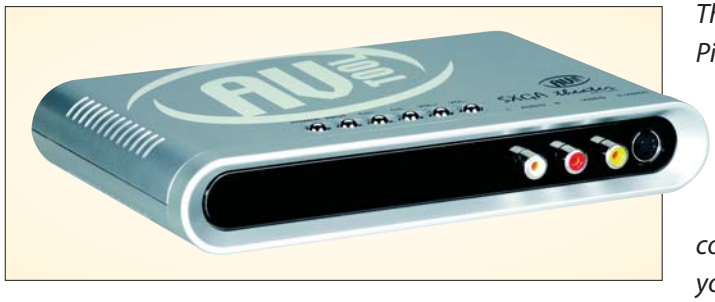
Video-to-XGA Scaler (Upconverter)

The AVT-3340 is a high performance, low cost video scaler that converts virtually any video signal into a high resolution VGA signal for improved picture performance. Plus, each input has its own associated stereo audio connection, so it is easy to switch between a composite, S-Video or PC input without moving around any cables. The PC loop-thru feature allows the unit to remain in your PC system without affecting normal computer operation. When you want to view a video source on the computer monitor, just switch the AVT-3331 out of the bypass mode. If fact, you do not even need a computer for operation - just the monitor. The built in video processor provides adjustments for contrast, brightness, color and tint.

- Up-converts video to VGA, SVGA or XGA
- Selectable 640 x 480, 800 x 600 or 1024 x 768 output
- Automatic input standards selection for NTSC, PAL, PAL/M, PAL/N or SECAM
- Composite (RCA) and S-Video input with their own separate stereo audio connectors
- On-screen display for ease of setup
- Computer loop-thru input via HD15 connector with stereo audio (mini jack connector).
- VGA output via HD15 connector with stereo audio via mini jack connector
- Adjustable brightness, contrast, color, tint
- Measures 1.8 x 9.3 x 5.1″ (HxWxD)

AVT-3400

Video-to-XGA Scaler (Upconverter) w/PiP and Tuner



The AVT-3400 is a low cost video-to-SXGA converter with Picture-in-Picture capability. This allows you to work on a computer application and view a TV program or DVD at the same time. In addition, you can preview 9 different channels at the same time, making it easier to find the channel you want to watch. The AVT-3400 turns any computer monitor into a true multimedia center by merging your computer with a wide variety of external video and audio devices. It accepts video and audio from a VCR, camcorder, DVD player, satellite receiver or virtually any other video source for display on any computer monitor, TFT display or LCD panel. Built in TV Tuner also allows you to watch broadcast or cable TV on the computer monitor as well, without adding any software or hardware inside the computer. It even routes the source device's stereo audio to the computer's speakers.

- View external video on any computer monitor
- Picture-in-Picture with 9 positions and 3 sizes
- Simultaneous 9 Channel Preview
- One-touch key to switch between TV and PC
- Outputs 640 x 480 (VGA), 800 x 600 (SVGA), 1024 x 768 (XGA), 1280 x 768 (WXGA) and 1280 x 1024 (SXGA)
- Composite, S-Video and Stereo Audio Input
- IR Remote Control
- Saturation, Contrast, Hue and Brightness adjustments
- Measures 1.25 x 7.5 x 5″ (HxWxD)

AVT-3800

ImageMAX PLUS Video Scaler

ImageMAX PLUS is a high performance video scaler for up-converting standard analog video for viewing on virtually any HDTV, plasma, digital or PC display. Using advanced frame buffer technology and line doubling, ImageMAX transforms video from a DVD player, camcorder, video game or satellite receiver into a high quality picture on any display device with an RGBHV (PC-type) or component (3 RCA connectors) input. It even works with HDTV-ready TV sets, resulting in dramatically improved video image quality. Frame buffering technology significantly increases the quality of images by doubling the standard video lines. ImageMAX PLUS converts NTSC or PAL video signals from 15.75KHz up to 31.5KHz horizontal scan rate and provides 480p, 576p, 720p or 1080i line resolutions for HDTV-ready displays, as well as VGA, SVGA, XGA and SXGA for PC-compatible displays. In addition, its 3:2 Pull Down auto detection will ensure that video sources will perform smoothly, flicker free and at the highest possible image quality. The unit can be controlled via front panel push buttons or infrared remote control.

FEATURES

- Enjoy HDTV picture quality with anti-flicker technology
- Watch high resolution images with movie like quality
- 3D comb filter for precise color management
- 4:3 or 16:9 aspect ratio
- 3:2 Pull Down auto detection
- Compatible with any display with RGBHV (VGA-type) or component input
- Component , composite and S-Video input
- PC Loop-thru connector via HD-15
- 480p, 720p, 1080i HDTV-type outputs
- VGA 640 x 480, SVGA 800 x 600, XGA 1024 x 768 and SXGA 1280 x 1024 output
- IR Remote Control with On-Screen Display
- Saturation, Contrast, Hue and Brightness adjustments
- Includes component output cable assembly (HD15 to 3 RCA Connectors)
- Includes RGBHV output cable assembly (HD15 to HD15)
- Includes composite and S-Video cables
- Measures 1.75 x 8.1 x 6.2" (HxWxD)

AVT-8710 Time Base Corrector

AVT-8710 TBC is a multi-system Time Base Corrector/Frame Synchronizer that accommodates NTSC, PAL and SECAM video signals. It eliminates picture jitter and time base errors from videotape playback and insures a stable on-screen image through the use of dual-field full-frame reconstruction. It restores distorted or misshapen vertical and horizontal sync and color burst signals. An integral Processing Amplifier allows the adjustment of Brightness, Contrast, Color Saturation, Hue and Sharpness. A Digital Comb Filter provides superior video signal decoding and the AGC (Automatic Gain Control) insures a proper 1-volt output signal from an input signal range of 0.5 to 2.0 volts. A built-in Color Bar Generator sends out a test pattern when there is no video input. Has composite and S-Video input/output.

- Video Standards: NTSC, NTSC 4.43, PAL (B, D, G, I, K), PAL-M, PAL-N and SECAM
- Video Adjustments: Brightness, Contrast, Color, Tint (NTSC) and Sharpness
- Composite video and S-Video input/output
- Built-in Color Bar Generator
- Automatic Gain Control
- Measures 1.3 x 3.5 x 5.7" (HxWxD)

SCAN DO FAMILY

Computer Video Scan Converters

The Scan Do line from Communications Specialties Inc. (CSI) is a premier family of scan converters for converting non-interlaced computer-based video into NTSC and PAL television-based interlaced video. The industry leader in performance, features and versatility, all models work with both VGA and Mac computers in all operating environments and support high resolutions and refresh rates. Full digital processing and 24-bit input sampling ensure the best possible picture quality. They require no special software or internal boards– eliminating software and hardware compatibility issues. Completely external, they simply plug into the video output port of your computer. They also feature user-friendly, front panel touch controls and multiple outputs for extra flexibility. The Scan Do Pro II with component output and Scan Do Select support resolutions up to 1280 x 1024. The Scan Do Pro II/D adds SDI output. Each Scan Do model is ideal for a wide variety of applications including presentations in boardrooms or classrooms; videoconferencing; editing and production; broadcast environments; medical imaging and multimedia. Ultra reliable, they are each backed by an extensive three-year warranty on parts and labor.

SCAN DO SELECT

Affordable XGA Scan Converter

The Scan Do Select offers the lowest cost/highest quality video in its price class. It accepts input from computers with resolution as high as 1280 x 1024 @ 60 Hz and converts it to high resolution composite and S-Video in both NTSC and PAL formats. Scan Do Select features image zoom, while shrink and positioning controls allow for proper sizing and viewing of the image. Image stability and crispness is achieved through a sophisticated three-line flicker reduction process. An RS-232 remote control provides for easy system integration, while the built-in color bar generator aids in proper set up and testing. An image freeze control "freezes" the image on screen, independent of the computer input. And, despite its compact size, Scan Do Select features a completely internal universal input power supply. Also includes a unique VGA/Mac turnaround input cable for ease of use. Optional rackmount kits are also available.

FEATURES

- Supports up to 1280 x 1024 @ 60 Hz
- Input computer sync range from 31 to 71 kHz
- Selectable zoom range from 0.5x to 2.0x with H & V positioning.
- Adaptive computer sync processing.
- Advanced three-line flicker reduction.
- Input zoom processing for true increase in resolution when zooming.
- Built-in color bar generator.
- Composite, S-Video NTSC and PAL output.
- Image freeze.
- Single cable for VGA and Mac operation.
- Internal, universal input power supply; no external "brick".
- RS-232 port for remote control capability of all front panel functions.
- Three-year warranty on parts and labor.

SCAN DO PRO II

XGA Scan Converter w/Component Output

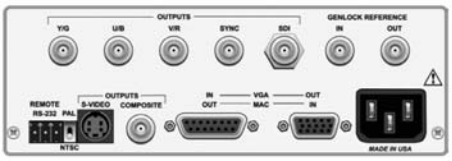
Scan Do Pro II combines the high resolution support (up to 1280 x 1024 @ 60 Hz) and superior processing offered by the Scan Do Select with professional broadcast-related features such as studio timeable genlock, component output (YUV and RGB formats), a switchable vertical filter and optional SDI (serial digital output). True multi-scanning with support for resolutions up to 1280 x 1024 (at 60 Hz) ensures it will work with virtually any computer. A three-line flicker reduction filter produces sharp, stable images and multi-level input zoom processing actually enhances resolution. Front-panel controls and interface are designed for user-friendliness, but it also offers an internal, universal power supply and standard RS-232 remote, bringing convenience and ease-of-use to a new level.

- Broadcast-quality scan conversion of computer resolutions up to 1280 x 1024 @ 60 Hz to NTSC and PAL video
- Input computer horizontal sync range from 31 to 71 kHz
- Fully timeable genlock with horizontal and subcarrier phasing
- Component (YUV and RGB formats), composite and S-Video output
- Multi-step zoom with H&V positioning: 0.85x, 1.0x, 1.3x, 1.6x, 2.0x
- Switchable vertical filter
- Adaptive computer sync processing
- Built-in color bar generator
- RS-232 port for remote control capability of all front panel functions
- Image freeze
- Switchable NTSC or PAL outputs
- Optional rackmount kits

SCAN DO PRO II/D

XGA Scan Converter w/Component & SDI Output

The Scan Do Pro II/D incorporates all the features of the Scan Do Pro II, except this SDI equipped model converts high-resolution graphics to NTSC and PAL video in serial digital component as well as composite, Y/C, YUV and RGB formats. of their respective counterparts, plus both include an RS-232 port for remote operation of all scan converter functions.



Scan Do Select *(COSDS)* **999.95**

Scan Do Pro II *(COSDPROII)* **1549.95**

Scan Do Pro II/D *(COSDPROIID)* **2799.95**

5x BNC Input Cable *(COHD15)*: 6' RGBHV..... **74.95**

4x BNC Input Cable *(CO4BNCM3)*: 3' RGBS .. **79.95**

Rackmount Kit *(COSRSDS)*
1RU high, for Scan Do Select **69.95**

Rackmount Kit *(CODRSDS)*: 1RU high, for two Scan Do Selects side-by-side **69.95**

Rackmount Kit *(COSRSDP)*
2RU high, for Scan Do Pro II or II/D **116.95**

Rackmount Kit *(CODRSDP)*: 2RU high, for two Scan Do Pro II or II/D side-by-side **116.95**

	Scan Do Select	Scan Do Pro II	Scan Do Pro II/D
Horizontal Sync Frequency Range	31-71kHz (320 x 200 to 1280 x 1024), analog RGB, non-interlaced resolutions		
Input Sync Types Supported	Separate H&V, composite sync, sync-on-green		
Input Loop-Through	Passive, self-terminating if not used		
Genlock Input with Loop-through	—	✓	✓
Composite (BNC) and S-Video	✓	✓	✓
NTSC and PAL (switchable)	✓	✓	✓
VGA and Mac loop-through Output	✓	✓	✓
YUV, RGB and RGBS/Component (BNCx4)		✓	✓
SDI (Serial Digital Interface) Output (BNC)	—	—	✓
For Mac Input/Output	HD-15F (input) and DB-15F (output)		
For VGA Input/Output	HD-15F (input) and DB-15F (output)		
RS-232 Port	✓	✓	✓

DEUCE FAMILY

Intelligent Video Scalers

CSI's Deuce family are affordable, high performance, intelligent scalers that provide conversion of NTSC and PAL video to a wide range of non-interlaced, high resolution images that exactly match the "sweet spot" of any LCD/DLP projector or plasma display. With a Deuce video scaler, projectors and displays have non need to "re-process" the output of a doubler or quadrupler in order to match their own native resolution. Final displayed image benefits from the least possible distortion. They accept any video source, de-interlace it with proprietary, advanced motion compensation, and then intelligently scale it to the desired resolution with virtually no artifacts, rendering traditional line doublers and quadruplers obsolete. You set the output resolution, they do the rest. Models are available for every application, from professional A/V installations to home theater, including a model designed especially for use with HDTV displays. Even projectors and displays with built-in scaling capabilities can benefit from the additional level of motion compensation and video processing that Deuce scalers can provide.

DEUCE SDQ

Scaler, Line Doubler and Line Quadrupler

Providing a video scaling solution for the most price-conscious sector of the professional A/V markets, the Deuce SDQ is a versatile scaler, line doubler and line quadrupler that offers state-of-the-art signal processing technology— but with a no-frills design and at an extremely affordable price.

Deuce SDQ offers the most sophisticated level of "intelligent" motion compensation processing available. Making use of three different algorithms (adaptive frame using inverse 3:2 pulldown, vertical temporal or static mesh), the scaler automatically selects the most effective motion compensation method or combination of methods based upon the source material being scaled. Deuce SDQ accepts composite, S-Video and Y/CB/CR component inputs in NTSC or PAL standards. Intelligently scales to five output resolutions: 800 x 600, 1024 x 768, 1280 x 1024, line double and line quadruple. The simple front panel has a lockout function and a non-volatile memory remembers all settings. In addition, the compact unit boasts an RS-232 remote control and a universal input power supply.

- Intelligent video scaling to three resolutions, plus line doubling and line quadrupling.
- Switchable composite, component and S-Video inputs in NTSC and PAL standards.
- VGA-compatible HD-15 connector provides RGBHV, RGBS or Y/CB/CR progressive scan output formats.
- Output vertical refresh rate locked to input vertical refresh rate (59.95Hz NTSC; 50Hz PAL).
- Output resolutions include: 800 x 600, 1024 x 768, 1280 x 1024, line double and quadruple.
- Automatically detects and applies the best motion compensation selecting from three algorithms:
  - Static mesh (images with little or no motion).
  - Vertical temporal (standard vide).
  - Adaptive frame (inverse 3:2 pulldown, for video originating from a film source.
- Supports 16:9 "letterbox" videotape and DVD sources.
- RS-232 remote port for use with a media controller.
- Non-volatile memory remembers all settings.
- Lockout function on front panel controls.
- Universal input power supply incorporated in chassis.

COMMUNICATIONS SPECIALTIES (CSI)

DEUCE MC

Scaler, Line Doubler and Line Quadrupler

Otherwise identical to the Deuce SDQ, the Deuce MC has a unique user-selectable Motion Compensation feature that can be set based on the specific input source image. The motion compensation feature enables Deuce MC users to select one of three different motion compensation techniques: adaptive frame using inverse 3:2 pulldown, vertical temporal or static mesh, or one of three automatic modes that automatically analyze the video input. Because each technique is set specifically for the type of input image, the result is the clearest, crispest picture quality possible, making Deuce MC ideal for professional A/V applications. Step features from as Deuce SDQ —

- Six user-selectable motion compensation settings using three different algorithms, applied individually or in combination:
  - — Static mesh (images with little or no motion)
  - — Vertical temporal (standard video) — Adaptive frame (inverse 3:2 pulldown, for video originating from a film source)

DEUCE HD High Definition Scaler

The Deuce HD is designed for applications that use projectors and other display equipment featuring HD output resolutions. Deuce HD enables HDTV-quality images from any standard NTSC or PAL source material. It meets a wide range of HDTV and DTV standard with five scaled outputs, including 480p, 720p, 1080p, 1280 x 1024 and 1366 x 768.

Like the Deuce MC, Deuce HD makes use of three different algorithms (adaptive frame using inverse 3:2 pulldown, vertical temporal or static mesh) and then automatically selects the most effective motion compensation method or combination of methods based upon the source material being scaled. Deuce HD supports 4:3 and 16:9 aspect ratios, and provides conversion from one to another as well.. Even projectors and displays with built-in scaling can benefit from the additional level of image processing that Deuce HD can provide. Features composite, S-Video and component inputs and RGB or Y/CB/CR component outputs, plus an RS-232 pot. The slim, black unit has a simple, intuitive user-interface and internal, universal power supply.

- Intelligent video scaling to five DTV and HDTV resolutions
- Output vertical refresh rate locked to input vertical refresh rate (59.95Hz NTSC; 50Hz PAL)
- Three aspect ratio conversions from input to output:
  - — 4:3 to Full Screen (4:3 or 16:9)
  - — 4:3 to 4:3 in 16:9 screen
  - — 16:9 to 16:9 (letterbox to full 16:9 screen)
- Automatically detects and applies the best motion compensation selecting from three algorithms:
  - – Static mesh (images with little or no motion)
  - – Vertical temporal (standard vide)
  - – Adaptive frame (inverse 3:2 pulldown, for video originating from a film source
- Supports 16:9 "letterbox" DVD sources
- Switchable composite, S-Video and component inputs in NTSC and PAL standards
- VGA-compatible HD-15 connector provides RGBHV, RGBS or Y-CB-CR progressive scan output formats
- RS-232 port for use with an external media controller
- Non-volatile memory remembers all settings
- Lockout function on front panel controls
- Universal input power supply incorporated in chassis; no external power supply module

DEUCE

Video Scaler

Instead of just doubling or quadrupling, the Deuce is an intelligent video scaler that "thinks" about the optimum way to convert NTSC, SECAM or PAL input into high-resolution, professional-quality images in the native resolution of your LCD, CRT projectors or plasma display. Advanced features include six output resolutions at 60 and 75 Hz vertical refresh rates, adaptive motion compensation, and support for 4:3 and 16:9.

- Intelligent scaling to six output resolutions:
  - 640 x 480, • 852 x 480, • 800 x 600
  - 832 x 624, • 1024 x 768, • 1280 x 1024
- Selectable output vertical refresh rates of 60Hz and 75Hz (60Hz only at 1280 x 1024) for the brightest, flicker free image
- Advanced motion compensation when de-interlacing input video
- Two simultaneous outputs:
  - — VGA compatible (HD-15 connector)
  - — RGBHV, RGBS or RGsB (BNCs)
- Horizontal and vertical positioning.
- Switchable NTSC, PAL, SECAM composite and S-Video inputs
- Processing controls for contrast, brightness, color saturation and hue.
- Supports 4:3 and 16:9 modes
- Non-volatile memory remembers all settings, lockout function of front panel controls.

DEUCE PRO

Full-Featured Video Scaler

In addition to composite and S-Video, Deuce Pro offers component YUV and RGB inputs, as well as switchable stereo audio inputs corresponding to each video input. It provides ten different output resolution formats, including two "custom" outputs which are user-defined, and it supports four aspect ratios to accommodate normal and various wide-screen formats. You also have a choice of three output refresh rates. Deuce Pro offers an enhanced level of video processing and expanded range of features to generate the highest quality of output. Advanced noise reduction and image sharpness circuitry provide independent control over chroma and luminance noise reduction and image sharpness. And, unique to Deuce Pro, is a front panel button that allows the removal of visible head switching lines found at the bottom of video frames coming from interlaced video.

- Eight fixed and two user-definable resolutions:
  640 x 480, 852 x 480, 800 x 600, 832 x 624, 1024 x 768, 1280 x 768, 1280 x 1024, 1365 x 1024, User 1, User 2 (via RS-232)
- Support for four different input aspect ratios (4:3 and 16:9, 1.85:1, 2.35:1 widescreen)
- Selectable output refresh rates (60, 75Hz and locked to input) for bright, flicker free images
- Output types:
  —RGBHV, RGBS or RGsB and sync (6 BNCs)
  —RGBHV on HD-15F
- RS-232 remote control
- Processing controls for contrast, brightness, color saturation and hue
- Two sets composite and S-Video (NTSC, PAL, SECAM), component, RGB, and VGA compatible (loop-through only) inputs
- Horizontal and vertical positioning
- Recursive noise reduction (selectable luminance and chrominance
- Non-volatile memory remembers all settings, lockout function of front panel controls.
- Advanced motion compensation when de-interlacing input video
- Stereo audio switching for all inputs
- Rackmount (1 RU) or free standing design

DEUCE FAMILY COMPARISON CHART

	Deuce SDQ	Deuce MC	Deuce HD	Deuce	Deuce Pro
Inputs					
Input formats	NTSC and PAL	NTSC and PAL	NTSC and PAL	NTSC and PAL	NTSC and PAL
Composite	✓	✓	✓	✓	✓
S-Video	✓	✓	✓	✓	✓
YUV component	✓	✓	✓	—	✓
RGBS or RGsB	✓	✓	✓	—	✓
VGA compatible	—	—	—	—	✓
Input Aspect Ratios					
4:3/16:9	✓	✓	✓	✓	✓
1.85:1 Widescreen	—	—	—	—	✓
2.35:1 Widecreen	—	—	—	—	✓
Output Resolutions					
640 x 480	—	—	—	✓	✓
852 x 480	—	✓	—	✓	✓
800 x 600	✓	✓	—	✓	✓
832 x 624	—	—	—	✓	✓
1024 x 768	✓	✓	—	✓	✓
1280 x 768	—	—	—	—	✓
1280 x 1024	✓	—	✓	✓	✓
1366 x 768	—	—	✓	—	—
1365 x 1024	—	—	—	—	✓
Line Double	✓	✓	—	—	—
Line Quadruple	✓	✓	—	—	—
HDTV 480p 16:9 user defined 1	—	—	✓	—	Via RS-232 Port
HDTV 720p 16:9 user defined 2	—	—	✓	—	Via RS-232 Port
Output Types	HD-15F connector with standard VGA pin-out configurable as RBHV, RGBS or Y-CB-CR	HD-15F connector with standard VGA pin-out configurable as RBHV, RGBS or Y-CB-CR	HD-15F connector with standard VGA pin-out configurable as RBHV, RGBS or Y-CB-CR	HD-15F connector w/ standard VGA pin-out; 5 x BNC connectors configurable as RGBHS, RGBS or RGsB	RGBHV and CS on 6 separate connectors, BNC RGBHV on HD-15F
Image Processing Functions					
Brightness	—	—	—	✓	✓
Contrast	—	—	—	✓	✓
Saturation	—	—	—	✓	✓
Hue	—	—	—	✓	✓
Vertical Position	—	—	—	—	✓
Horizontal Position	—	—	—	—	✓
Luminance Noise Reduction	—	—	—	—	✓
Chrome Noise Reduction	—	—	—	—	✓
Detail Enhancement	—	—	—	—	✓

VP-701SC

VGA/SVGA/XGA Scan Converter

The VP-701SC is a real-time, computer-video scan converter designed to take the VGA (640 x 480), SVGA (800 x 600) and XGA (1024 x 768) resolution output of a computer and convert it to NTSC or PAL video. It features a 15-pin HD input with a loop-through for the computers local monitor, composite (RCA) and S-Video outputs, two-level four-line flicker reduction, Horizontal & Vertical shift and sizing controls, and compatibility with any VGA or SVGA computer signal, from 24-100 KHz Horizontal up to 150 Hz vertical refresh rate. Its 24-bit color sampling features true-color and real-time image reproduction.
The VP-701SC features auto-scanning input signal detection and AutoTrak - Kramers unique auto-set-up button that automatically sizes, shifts and centers to output signal on the video monitor or projector, a feature not found on any other scan converter at or near its price-point. The VP-701SC is the perfect combination of features, performance and compatibility in a unique, aesthetic vertical or horizontal desktop mount metal enclosure with front panel LED, on-screen menu adjustment capability and IR remote control.

- AutoTrak Auto Set Up ; one button setup automatically sizes, shifts, and centers any input image on the display device.
- H/V shift and sizing to adjust output to display.
- 2 or 4-line flicker reduction (selectable).
- 24-100kHz (H) and 40-150Hz (V) input compatibility.
- Looping input.
- Selectable input signal termination or auto sensing termination.
- PAL or NTSC output (selectable).
- Simultaneous composite & S-Video outputs.
- Front panel and IR remote control (included) with on screen menus.
- Selectable Over/Under Scan 7
- Freeze Frame
- Front panel lock out
- 2x Zoom and Pan
- Compact, desktop size, two units can be rack mounted side-by-side in a 1U rack space with the optional RK-701DBL adapter.

VP-703SC • VP704SC • VP-706SC

VGA/SVGA/XGA/SXGA Scan Converters

The VP-703SC steps-up from the VP-701SC (above) with SXGA (1280 x 1024) resolution capability, is rack-mountable (1U high), VP-703SC includes RS-232 control, and has RGBHV outputs. It also offers three-level six-line flicker reduction. The VP-703SC is the perfect combination of features, performance and compatibility in a rack-mountable, metal enclosure with front panel LED, on-screen menu adjustment capability, RS-232 control and IR remote control.
The VP-704SC adds UXGA (1600 x 1200) resolution capability and RS-232 control . The VP-706SC steps up with component video output and has a genlock input with loop.

VP-719DS

Video Scaler

The VP-719DS is a true multi-standard video to RGBHV scaler that convert composite, S-Video, component video (SDTV and HDTV), VGA-through-UXGA, and DVI signals to 14 user-selectable pixel rates. It also acts as a 7-input seamless presentation switcher.

It digitally reprocess the signal to correct mastering errors, and regenerate the video at a higher line and pixel rate format, providing native-resolution video for LCD, DLP and plasma displays. The VP-719DS also allows scaling of any graphics resolution to any other resolution (scaling for example, a VGA input to an UXGA output, or an SXGA input to an SVGA output, etc).

Audio channels are switched in audio-follow-video mode. The unit can be controlled via front panel touch keys, infra-red remote control, and RS-232. It features a user-friendly on-screen display for making the adjustments. The VP-719SD incorporates a full scale ProcAmp for video and audio correction and enhancement, and offers 3:2/2:2 pull down. It is housed in a 19" 1U, rack-mountable metal enclosure and uses a universal 100-240v AC automatic power supply.

- Converts composite, S-Video, component video (SDTV and HDTV), VGA-through-UXGA, and DVI-D signals to14 user-selectable pixel rates: VGA (640 x 480), SVGA (800 x 600), XGA (1024 x 768), SXGA (1280 x 1024), UXGA (1600 x 1200), 1024 x 852, 1024 x 1024, 1366 x 768, 1365 x 1024, 1280 x 720, 720 x 483, 852 x 480, 1400 x 1050, as well as user desired output mode.

VP-720XL • VP-723XL • VP-724XL

Video Scalers with Picture-in-Picture Inserter

The VP-720XL steps-up from the VP-719DS (above) with a built in Picture-in-Picture inserter, allowing the insertion of any video source into a graphics background and vice versa, as well as allowing the inserted image to be sized and positioned anywhere on the screen. In addition, the PIP can display a split-screen (two images side by side). It offers ten user-selectable pixel rates. (Same as the VP-719SD except no 720 x 483, 852 x 480, 1400 x 1050 or user desired output mode.)

The VP-723XL steps-up with three additional output modes: 480p, 720p and 1080i in component format with tri-level sync. The VP-724XL is identical to the VP-723XL except it also acts as an 8-input seamless presentation switcher.

KRAMER PRICING

VP-701SC *(COVP701SC)* **760.00**	**VP-704SC** *(COVP704SC)* **1564.00**	**VP-719DS** *(COVP719DS)*....**1095.00**	**VP-723XL** *(COVP723XL)* **1436.00**
VP-703SC *(COVP703SC)* **1036.00**	**VP-706SC** *(COVP706SC)* **1996.00**	**VP-720XL** *(COVP720XL)* **1276.00**	**VP-724XL** *(COVP724XL)* **1596.00**

CS-320 Connect • CS-400 Select

CORIOscan Series Scan Converters

Designed for high performance, the CS-320 Connect and CS-400 Select are PC and Mac compatible and can be controlled from their front panel or via an infrared remote. AutoSet takes the hassle out of making the computer image fit onto the TV screen. Just push a button and the computer image is automatically sized and positioned to fit exactly onto the video screen. Settings are retained in memory, even when power is turned off, for dozens of computers and resolutions. So, the next time you use it, no setup is required. They feature 2x Zoom and Pan, advanced 4-Line Digital Flicker Elimination circuitry, and switchable NTSC and PAL outputs in composite, S-Video and RGBs.

The CS-400 Select steps-up with an OSD (On-Screen Display) for status monitoring and easy setup, and an RS-232 interface that enables the remote control to function as a remote mouse to control your computer from a distance. Also has a brightness control and four video (two composite, two S-Video) outputs for greater connectivity.

- They automatically recognize and configure for incoming resolutions up to 1600 x 1200, and automatically size the incoming signal to exactly fit the video screen.
- In addition to AutoSet, flexibility is provided by wide range H-V size and positioning
- User-definable Overscan/Underscan
- Advanced 4-Line Digital Flicker Elimination circuitry provides crisp, clear images up to 1024 x 768, without line dropping, at any vertical refresh rate.
- Automatic recognition of previously used computer types and resolutions.
- Digital flicker reduction eliminates interlace flicker without resolution loss.
- 2x Zoom and Pan, lets you enlarge a 1/4 of the computer screen to fill the entire video screen and the Pan feature allows you to move around to any area you choose.
- Computer loop-thru allows normal use of the local computer monitor while scan converter is operating.
- Switchable NTSC or PAL video output
- Composite, S-Video and RGBS output
- They include full-function IR remote control and universal 110/220v power supply

CS-400 Select Step-up Features

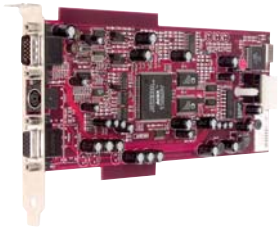
- RS-232 interface facilitates control of all scan converter functions by external devices
- Use the IR remote as a Mouse to control the source PC (Remote Mouse Emulation)

CS-450 ECLIPSE / CS-460 ECLIPSE INTERNAL /CS-470

CORIOgen Series Scan Converters with Genlock and Overlay

CS-450 Eclipse provides the same high quality computer-to-video scan conversion as the CS-400 Select (above), while adding a genlock and overlay feature. It converts computer graphics to NTSC or PAL video and allows those graphics to be keyed over an external composite or S-Video signal. All black areas of the image from the computer can be replaced with the external video. Choose between Hard (Solid) or Soft (Transparent) Keys with five levels of transparency. Also, the Mix Mode permits glitch-free dissolving between the computer image and external video. The dissolve rate is adjustable for both the Key and Mix Modes.

CS-460 Eclipse Internal is a PCI version of the CS-450. Designed specifically for system integration, the card eliminates the need for external power supplies and greatly reduces the length of cables usually required from the PC to the unit. Includes video breakout cables and control is via RS-232 using either your own software or TV One's CORIO Control Panel software. An IR Remote Control is available as an option and requires the optional Infrared Receiver Module to work. The CS-470 is identical to the CS-450 Eclipse, except that it is housed in a rackmount case.



CS-500A/CS-520A/CS-550A

Pro S Series Scan Converters

CS-500A

The Pro S series (CS-500A, CS-520A and CS-550A) are high performance, high resolution scan converters compatible with workstations, Macs and PCs. They employ advanced Digital Filtering circuitry to insure maximum picture quality and an advanced Digital 6-Line Flicker Reduction system for maximum clarity. They handle resolutions up to 1600 x 1200 without horizontal line dropping, which means no data loss during the conversion process. They accept vertical refresh rate and horizontal scan rates up to 100KHz. In order to deal with a wide variety of workstations, they accept computer signals with Sync-on-Green, Mixed (Composite) Sync and H&V Sync. Video outputs are NTSC/PAL switchable and are simultaneously provided in composite, S-Video, and RGBs (or YUV) formats, as well as a computer monitor loop-thru.

CS-520A

CS-550A

- The CS-500A is housed in a desktop case, the CS-520A is housed in a 1RU rackmount case and the CS-550A is two complete scan converters in a single 1RU rackmount case.
- Auto Detect configures for incoming resolutions up to 1600 x 1200, while TV One's exclusive AutoSet feature automatically sizes and positions the computer image to fit exactly on the video screen.
- All settings, including scalable Underscan and Overscan, are stored in non-volatile memory and are retained even when power is switched off.
- Front panel LCD makes setup easy (provides ease of Menu Navigation, setup and adjustment). All functions can be controlled via front panel push buttons, remote control or RS-232 connection.
- Menu selectable NTSC or PAL video output
- Digital flicker reduction eliminates flicker without resolution loss.
- 2x Zoom and Pan (superior because it is done before conversion).
- Remote Mouse emulation is a standard function of the remote control when used in conjunction with the RS-232 connection.

CS-600A
CS-620A
CS-650A

Pro SG Series Scan Converters

Pro SG Models (CS-600A, CS-620A and CS-650A) provide all the performance and features of the Pro S series, plus studio genlock capability with adjustable SCH phasing, subcarrier phasing and horizontal sync timing. The studio genlock feature enables these units to be easily integrated into a broadcast studio or post production environment.

Models	CS-320	CS-400	CS-450 CS-470	CS-500A CS-520A CS-550A	CS-600A CS-620A CS-650A
Maximum Resolution	PC to 1600 x 1200	PC to 1600 x 1200	PC to 1600 x 1200	PC to 1600 x 1200	PC to 1600 x 1200
Video Inputs					
RGB	✓	✓	✓	✓	✓
Composite Video			✓		✓
S-Video			✓		✓
Genlock					✓
Video Outputs					
Composite Video	✓	✓	✓	✓	✓
S-Video	✓	✓	✓	✓	✓
RGBS	✓	✓	✓	✓	✓
YUV				✓	✓
Features					
AutoSet	✓	✓	✓	✓	✓
CORIO Powered	✓	✓	✓	✓	✓
Key			✓		
Mix			✓		

TV ONE-TASK

TV One-Task products are ultra compact, high performance units that perform a single specific function. When the requirement is for high quality without the usual associated complexity to perform a dedicated job, a TV One-Task product is the solution.

1T-V1280PCHD • 1T-V1280DVI Upconverters

TV One-Task Video Scalers are ultra compact, high performance products designed to meet the most demanding requirements for signal conversion. The input video can be composite, S-Video or component. The output signal is selectable in a wide variety of presets in either RGBHV or YPbPr (component) format. Model 1T-V1280PCHD provides an analog output, while the 1T-V1280DVI provides a DVI output. The integral processor provides control over many signal parameters, such as: contrast, brightness, hue and color. Both are 5v DC. For best performance, use high-grade output cables such as TV One's professional Z-Plus type.

TVOne 1T-PC1280PCHD top

TVOne 1T-V-VGA-DVI top

1T-VGA-DVI • 1T-DVI-VGA RGB Scalers

TV One-Task Series DVI-VGA converter/scalers are ultra compact, high performance products designed to meet the most demanding requirements for signal conversion. Model 1T-VGA-DVI converts analog to DVI, while the 1T-DVI-VGA converts DVI to analog. A wide variety of PC and HDTV I/O resolutions are supported. The input resolution is automatically detected and can either be RGBHV or YPbPr format. The 1T-VGA-DVI can also accept a component 480i YCbCr signal from a DVD player for example, and convert it to DVI at PC or HDTV resolutions. The output resolution and refresh rate is selected via push buttons and OSD menu. The integral processor provides control over many signal parameters, such as: contrast, brightness, color saturation, R/G/B levels and H-V positioning. Both models are 5v DC powered and include a small in-plug power adapter.

1T-PC1280HD • 1T-PC1280PC RGB Scalers

TV One-Task PC/HDTV converters are ultra compact, high performance products designed to meet the most demanding requirements for signal conversion. The input resolution is automatically detected and can either be RGBHV, YPbPr or YCbCr format. In addition to PC to PC and PC to HDTV conversions, the unit can take a 480i component video signal, from a DVD player for example, and convert it to PC or HDTV resolutions. The output resolution and refresh rate is selected via push buttons and OSD menu. The 1T-PC1280HD provides conversion to and from a wide variety of PC and HDTV signals, while the 1T-PC1280PC provides conversion to and from PC signals only. The integral processor provides control over many signal parameters, such as: contrast, brightness, color Saturation, R/G/B levels and H-V positioning. Both models are 12v DC powered and include a small in-plug power adapter.

TVOne 1T-PC1280PC top

1T-C2-100 • 1T-C2-150 Down Converters

Housed in a compact desktop case (rackmount kits are available), the 1T-C2-100 uses CORIO2 technology to provides high quality scan conversion from computer or HDTV signals to standard video formats in a compact package. It handles resolutions up to 2048 x 2048 at any vertical refresh rate and all HDTV resolutions up to 1080p. A wide variety of computer signal formats can be accommodated. Video outputs are switchable between NTSC and PAL and are simultaneously output in composite and S-Video. A PC loop-thru is also provided.

The 1T-C2-150 Down Converter PLUS adds Genlock, Chromakey and Lumakey. The Key Mode allows graphics to be keyed over an external composite or S-Video signal. The keyed image may be faded in and out. Precise keying at the pixel level can be achieved. The Mix Mode permits glitch-free mixing between the computer image and video. PIP Mode allows either of the computer inputs to be inset in a window over either of the video inputs or visa versa.

TV ONE-TASK CONVERTERS A GLANCE

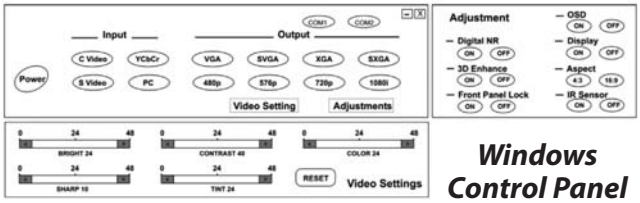
Product Category	PC-HDTV RGB Scalers		Video Scalers (Up-Converters)		VGA-DVI Converters/Scalers		
VIDEO OUTPUT	**1T-PC1280PC**	**1T-PC1280HD**	**1T-V1280PCHD**	**1T-V1280DVI**	**1T-VGA-DVI**	**1T-DVI-VGA**	**1T-DVI-DVI**
PC Resolution							
VGA (640 x 480)	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
VGA70 (720 x 400)	*Yes*	*Yes*			*Yes*	*Yes*	*Yes*
VESA85 (640 x 400)	*Yes*	*Yes*			*Yes*	*Yes*	*Yes*
SVGA (800 x 600)	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
XGA (1024 x 768)	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
Mac (1152 x 864)	*Yes*	*Yes*			*Yes*	*Yes*	*Yes*
WXGA (1280 x 768)	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
1280A (1280 x 960)	*Yes*	*Yes*			*Yes*	*Yes*	*Yes*
SXGA (1024 x 1024)	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
HDTV Resolution							
480P		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
576P		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
720P		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
1080i (540p Doubled)		*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
Signal Type							
DVI				*Yes*	*Yes*		*Yes*
Analog	*Yes*	*Yes*	*Yes*				*Yes*
Signal Format							
RGBHV	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
YPbPr	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
VIDEO INPUT	**1T-PC1280PC**	**1T-PC1280HD**	**1T-V1280PCHD**	**1T-V1280DVI**	**1T-VGA-DVI**	**1T-DVI-VGA**	**1T-DVI-DVI**
PC Resolution							
VGA (640 x 480)	*Yes*	*Yes*			*Yes*	*Yes*	*Yes*
VGA70 (720 x 400)	*Yes*	*Yes*					
VESA85 (640 x 400)	*Yes*	*Yes*					
SVGA (800 x 600)	*Yes*	*Yes*			*Yes*	*Yes*	*Yes*
XGA (1024 x 768)	*Yes*	*Yes*			*Yes*	*Yes*	*Yes*
Mac (1152 x 864)	*Yes*	*Yes*			*Yes*	*Yes*	*Yes*
WXGA (1280 x 768)	*Yes*	*Yes*			*Yes*	*Yes*	*Yes*
1280A (1280 x 960)	*Yes*	*Yes*					
SXGA (1024 x 1024)	*Yes*	*Yes*			*Yes*	*Yes*	*Yes*
HDTV Resolution							
480i	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		
480P / 576P		*Yes*			*Yes*	*Yes*	*Yes*
720P		*Yes*			*Yes*	*Yes*	*Yes*
1080i		*Yes*			*Yes*	*Yes*	*Yes*
Signal Type							
DVI						*Yes*	*Yes*
Analog	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		
Signal Format							
RGBHV	*Yes*	*Yes*			*Yes*	*Yes*	*Yes*
YPbPr		*Yes*			*Yes*	*Yes*	*Yes*
YCbCr (YUV)	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*		
S-Video			*Yes*	*Yes*			
Composite Video			*Yes*	*Yes*			

SC-1250

Video Scaler (Up Converter)

The SC-1250 is a high-performance, low-cost video scaler that transforms component, composite or S-Video into standard RGBHV computer signals at VGA, SVGA, XGA or SXGA resolutions. It also has HDTV 16:9 outputs at 480p, 576p, 720p or 1080i. Ideal for use with LCD projectors, projection TV systems, plasma or HDTV displays. The output resolution is selectable between the most popular PC and HDTV formats. Available in desktop or rackmount version.

- Component, composite and S-Video inputs
- Adjustments are provided for color saturation, hue, brightness, contrast and sharpness.
- There is an HD-15 pass-thru for a computer or HDTV signal.
- An OSD (On Screen Display) facilitates menu navigation for setup and selection.
- Automatically detects a variety of NTSC and PAL standards.
- Adaptive Film Mode with automatic 3:2 pull-down provides clear and crisp de-interlacing video from 24 fps film. It offers significant enhancements when viewing movies on a large screen. Smooth deinterlacing and video motion compensation is included.
- In addition to the front panel controls, it can be controlled via the supplied infrared remote control. In addition, an RS-232 interface allows control by a variety of third party control systems or from a PC with the bundled Windows Control Panel software.



Windows Control Panel

CSC-1600HD Video Scaler (Up Converter)

Like the SC-1250, the CSC-1600HD is a high-performance video scaler for upconverting composite, S-Video or YUV component video to high resolution computer and HDTV signals. The output resolution is selectable as VGA, SVGA, XGA, SXGA—plus WXGA and 1365 x 768, 720p or 1080i in the RGBHV format and as 480p or 576p in the YPbPr format. The output signal can be assigned to either an HD-15 or 5 BNC connectors on the rear panel. A Vertical Temporal Filter removes jagged edges and other de-interlacing artifacts for video motion sequences. Superior motion compensation circuitry insures a smooth presentation of fast moving images. The CSC-1600HD is ideal for use with LCD projectors, projection TV systems, plasma or HDTV displays to improve picture quality.

Step-up features from the SC-1250:

- Selectable resolution output up to WXGA and 1365x768
- Direct video input selection – composite, S-Video, YCbCr component video and PC/HDTV bypass.
- OSD (On-Screen Display) for easy operation
- Two output formats – 480p and 576p in YPbPr and all other resolutions in RGBHV.
- Each of the eight output resolutions has its own front panel button.
- Choose from sending the output signal to either an HD-15 or 5 BNC's.
- Adjustments are provided for color, hue, brightness, contrast and sharpness and each of the three video input has its own non-volatile memory to retain these settings, even when the power to the unit has been turned off

C2-4100

Video Scaler, Switcher, Chroma/Luma Keyer, PiP Device

The C2-4100 is a high performance RGB, PC-HDTV, HDTV-HDTV and PC-PC Scaler. Incorporating TV One's exclusive CORIO2 technology conversion engine, it handles any resolution from 640 x 480 up to 2048 x 2048, even non-standard resolutions, plus all HDTV resolutions. It also offers seamless switching, a chroma and luma keyer, Picture-in-Picture, and RGB frame sync. Other features include aspect ratio converter, RGB-HDTV genlock, windowing, genlock, logo insertion and aspect ratio conversion. The 3-inputs and 2-outputs will accommodate RGBHV resolutions up to 2048 x 2048, and component in all HDTV formats. Plus, the C2-4100 also has an RGBHV preview output to facilitate live event switching.

- Unparalleled P-I-P performance.
  - Any video input can be squeezed and placed into a window of any size and positioned anywhere on the screen.
  - The window can be placed over any other video input as the background.
  - Amazingly powerful zoom of up to 1000% and Image Shrink down to 10%, plus seamless switching with cuts or fades and any input can be genlocked to any other.
- Multiple C2-4100 units may be cascaded to provide layer upon layer and window upon window of images.
- C2-4100's output signal format flexibility assures that the native resolution of virtually any display can be matched.
- Adjustment is provided for contrast and each video input has its own non-volatile memory to retain these settings, even when the power to the unit has been turned off.
- Integral test signals are user defined.
- A Logo memory is provided, so the unit can easily be used as a Logo Inserter.
- Windows Control Panel provides complete control of the unit and adds Macros to facilitate long, complex sequence of commands.
- The unit can be controlled from the front panel via a rotary encoder and LCD display, via RS-232, optional infrared remote, or a LAN with the optional Ethernet control.

C2-5100 Multi-Format Video Processor

The C2-5100 is a multi-function image conversion and scaling product coming very near the ideal of "Anything In – Anything Out". Not only is it a high performance Video Scaler, Up/Down Converter and seamless multi-format switcher, but also a worldwide standards converter, Chroma/Luma keyer, P-i-P device, HDTV converter, Frame Synchronizer, TBC, aspect ratio converter and a universal image genlock. 9-inputs inputs and 4-outputs accommodate composite, S-Video, YCbCr, YPbPr, all HDTV formats and any RGBHV resolution up to 2048 x 2048 -not just some predefined ones, but ANY resolution, even custom ones. The C2-5100 also has 2-outputs for Preview (RGBHV and composite video) to facilitate live event switching.

Step-up features from the C2-4100:

- The C2-5100 is ideally suited for use with LCD projectors, projection TV systems, Plasma or HDTV displays to improve picture quality. With its output signal format flexibility, it is assured that the native resolution of virtually any digital display can be matched.
- Because of the integral resolution calculator, even new resolutions can be instantly added to the menu.
- Advanced motion compensation smooths out fast moving images and automatic 3:2 pull-down efficiently de-interlaces video from 24fps film.

C2-5200

Multi-Format Video Processor w/SDI

The C2-5200 has all the features and functions of the C2-5100 plus adds an SDI input and output. This brings the unit's I/O total to ten inputs and five outputs. Additionally, a second SDI input is provided exclusively as a genlock source. The SDI I/O is fully integrated into the architecture of the unit, so that any of the other signal formats may be converted to and from SDI and the SDI signal can be used as either the background or insert in the Picture-in-Picture window mode. Of course, it is also possible to seamlessly switch between any of the analog inputs and the SDI input.

C2-7200 • C2-7100 Dual Channel Video Processors

Beyond its versatile capabilities in converting between analog and HD-SDI, the C2-7200 has the power of many other components ranging from a high-def video scaler and multi-format seamless switcher to a twin-window picture-in-a-picture device, chroma/luma keyer, aspect ratio converter, logo inserter, and much more. Behind this level of functionality are two completely independent scaling engines and two video mixers all utilizing TV One's proprietary CORIO2® technology. Outfitted with true 4:4:4 processing providing full-bandwidth color and precise keying (including soft keys), the device has eleven inputs accommodating multiple HD-SDI, SD-SDI, DVI, YPbPr, RGBHV, RGBS, RGsB, YCbCr, composite, and S-Video signals, as well as all HDTV formats and any PC resolution up to 2048x2048, not just pre-defined ones. A pair of independent output channels each offer SDI (SD or HD), DVI-I, any RGB format, and CV and SV. Armed with the ability to alter the aspect ratio of any input, the unit also allows different SDTV and HDTV images to be intermixed in any operating mode. The C2-7100 is identical to the C2-7200 except without the SDI inputs/outputs. This results in a total of 9 Inputs, along with the two independent output channels.

Same features as the C2-5100 and C2-5200 (respectively), PLUS—

- 4:4:4 sampling provides full bandwidth color which allows the C2-7200 to provide precise pixel by pixel keying, including soft (transparent) keys. 11 inputs accommodate multiple HD-SDI, SD-SDI, DVI, YPbPr, RGBHV, RGBS, RGsB, YCbCr, composite and S-Video signals.
- It handles all HDTV formats and any PC resolution up to 2048 x 2048 - not just some predefined ones, but ANY resolution, even custom ones. The two independent output channels each offer SDI (SD or HD), DVI-I (also any RGB format), CV and SV simultaneously. The unit's ability to alter the aspect ratio of any input enables different SDTV and HDTV images to be intermixed in any of the modes.

Three basic operating modes to simplify control:

Switcher Mode – Provides powerful Program and Preview channels for live event switching. In addition to previewing inputs before selection, complex function such as chromakeys and Picture-In-Picture, can be previewed for setup, totally independent of the Program channel output. Seamless transitions from Preview to Program can be either by cut, variable duration cross-fade or special effects. Any signal format can be freely mixed with any other.

Independent Mode - Provides the power of two independently functioning products, performing different tasks in one box. Each output can deliver different formats and resolutions simultaneously. For example, a presentation being fed to a high resolution display on Output 1 via DVI can also be fed to a VCR for recording on Output 2 via Composite Video. In a broadcast environment, the C2-7200 can function as two completely independent analog to HD-SDI Converters, each genlocked to a different reference and each with a different logo or ID keyed in.

Dual PIP Mode - Any video input can be squeezed and placed into either of two windows of any size and positioned anywhere on the screen, even overlapping each other with user defined layer priority control. The windows can be placed over any other video input or image from the unit's memory as the background. The image in the window can then be seamlessly switched or cross faded to another video input or even zoomed in or out. Keying can be added independently to each window and the background.

COMPARISON CHART

Product Category	Dual Channel Video Processors		Single Channel Video Processors		RGB Scaler
	C2-7200	C2-7100	C2-5200	C2-5100	C2-4100
Video Output					
Composite / S-Video	3x	3x	3x	3x	
RGB			3x	3x	3x
DV-I (including RGB & YUV)	3x	3x			
SDI (SD or HD)	2x SD/HD		1x SD		
Independent Output 1					
Composite / S-Video	1x	1x	1x	1x	
RGB			2x	2x	2x
DV-I (including RGB & YUV)	1x	1x			
SDI (SD or HD)	1x SD/HD		1x SD		
Independent Output 2					
Composite Video	1x	1x	Passive Prev	Passive Prev	
S-Video (Y/C)	1x	1x			
RGB			Passive Prev	Passive Prev	Passive Prev
DV-I (including RGB & YUV)	1x	1x			
SDI (SD or HD)	1x SD/HD		1x SD		
General					
CORIO2 Scaling Engines	2	2	1	1	1
Simultaneous PIP Windows	2	2	1	1	1
Sampling Format	4 : 4 : 4	4 : 4 : 4	4 : 4 : 2	4 : 4 : 2	4 : 4 : 2
IP Interface	▲	▲	Optional	Optional	Optional
SDI <--> Analog Conversion	SD/HD-SDI		SD–SDI		
SDI <--> DVI Conversion	SD/HD-SDI				
DVI <--> Analog Conversion	▲	▲			

Features common to all products

SDTV <--> HDTV Conversion, SDTV <--> SDTV Conversion, HDTV <--> HDTV Conversion, Video Scaling, Scan Conversion, Video Transcoding, CORIO2 Technology, Seamless Switching, Windows Control Panel, Chroma Keyer, Luminance Keyer, Input Parameter Adjustment, Genlock the Output to any Input, Time Base Correction, Aspect Ratio Conversion, Integral Logo Inserter, Built-In Test Patterns, Windows Control Panel, RS-232 Interface, Audio Switcher Option Available, Frame Synchronization

A2-2000 Stereo Audio Switcher

The A2-2000 Stereo Audio Switcher is available to add Audio follow Video or Audio Breakaway capability to the C2-4100, C2-5100/5200 and C2-7100/7200. This separate unit is 1 RU high and connects to the processors via a 15-pin interconnect cable. The microprocessor in the A2-2000 communicates with the microprocessor in the main unit, where all control commands originate. The A2-2000 provides both balanced and unbalanced connections for its 10 inputs, plus its Preview and Program outputs.